

SuperStorage Server 6048R-E1CR72L (Complete System On



(Mouse over image to see Alternate View)
SAS3 IT controller Storage



Key Features

1. Dual socket R3 (LGA 2011) supports Intel® Xeon® processor E5-2600 v4[†]/ v3 family; QPI up to 9.6GT/s
2. Up to 2TB[†] ECC 3DS LRDIMM , up to DDR4- 2400[†]MHz ; 16x DIMM slots
3. 1x PCI-E 3.0 x16, 6x PCI-E 3.0 x8 (3 slots occupied by IT Mode disk controllers, LSI 3008)
4. Dual 10GBase-T LAN w/ Intel® X540
5. 72x 3.5" Hot-swap SAS3/SATA3 drive bays; 2x 2.5" Hot-swap drive bays (rear)
6. SAS3 via 3x LSI 3008 controller; IT mode
7. Server remote management: IPMI 2.0 / KVM over LAN / Media over LAN
8. 7x 80mm middle cooling fans
9. 2000W High efficiency (96%) Redundant PSU; Titanium Level

Due to the complexity of integration, this product is sold as completely assembled systems only (with minimum 36 HDDs).

Note: Image above may show a varied configuration or optional parts, Please refer to parts list for standard parts included.

Specifications

Product SKUs

SSG-6048R-E1CR72L ■ SuperServer 6048R-E1CR72L (Black)

Motherboard

Super X10DRH-iT

Processor/Cache

CPU ■ Intel® Xeon® processor E5-2600 v4[†]/ v3 family (up to 145W TDP) *
■ Dual Socket R3 (LGA 2011)

Cores / Cache ■ Up to 22 Cores[†] / Up to 55MB[†] Cache

System Bus ■ QPI up to 9.6 GT/s

Note [†] BIOS version 2.0 or above is required

Note * Please contact Supermicro Technical Support for additional information about frequency optimized CPUs and specialized system optimization.

System Memory

Chassis

Form Factor ■ 4U Rackmount

Model ■ CSE-847DTS-R2K04LPB

Dimensions and Weight

Width ■ 17.2" (437mm)

Height ■ 7" (178mm)

Depth ■ 35" (889mm)

Weight ■ Gross Weight: 104 lbs (47.2 kg)
■ Net Weight: 67 lbs (30.4 kg)

Available Colors ■ Black

Front Panel

Buttons ■ Power On/Off button
■ System Reset button

LEDs ■ Power status LED
■ Hard drive activity LED
■ 2x Network activity LEDs
■ System Overheat LED
■ Power fail LED

Expansion Slots

Memory Capacity	<ul style="list-style-type: none"> 16x 288-pin DDR4 DIMM slots Up to 2TB[†] ECC 3DS LRDIMM, 512 ECC RDIMM
Memory Type	<ul style="list-style-type: none"> 2400[†]/2133/1866/1600MHz ECC DDR4 SDRAM 72-bit
DIMM Sizes	<ul style="list-style-type: none"> RDIMM: 32GB, 16GB, 8GB, 4GB LRDIMM: 64GB, 32GB 3DS LRDIMM: 128GB
Memory Voltage	<ul style="list-style-type: none"> 1.2 V
Error Detection	<ul style="list-style-type: none"> Corrects single-bit errors

On-Board Devices

Chipset	<ul style="list-style-type: none"> Intel® C612 chipset
SAS	<ul style="list-style-type: none"> SAS3 (12Gbps) via 3x LSI 3008 (AOC) IT mode firmware
SATA	<ul style="list-style-type: none"> SATA3 (6Gbps) with RAID 0, 1, 5, 10
IPMI	<ul style="list-style-type: none"> Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support ASPEED AST2400 BMC
Network Controllers	<ul style="list-style-type: none"> Intel® X540 Dual Port 10GbE Virtual Machine Device Queues reduce I/O overhead Supports 10GBASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output 1x Realtek RTL8201N PHY (dedicated IPMI)
Graphics	<ul style="list-style-type: none"> ASPEED AST2400 BMC

Input / Output

Serial ATA	<ul style="list-style-type: none"> 6x SATA3 (6Gbps) ports
LAN	<ul style="list-style-type: none"> 2x RJ45 10GBase-T LAN ports 1x RJ45 Dedicated IPMI LAN port
USB	<ul style="list-style-type: none"> 2x USB 3.0 ports (rear) 2x USB 2.0 ports (rear) 1x Type A
VGA	<ul style="list-style-type: none"> 1x VGA port
Serial Port / Header	<ul style="list-style-type: none"> 1x Fast UART 16550 port / 1 Header

PCI-Express	<ul style="list-style-type: none"> 1 PCI-E 3.0 x16, 3 PCI-E 3.0 x8 slots 3 slots occupied by IT Mode disk controller, LSI 3008
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Drive Bays

Hot-swap	<ul style="list-style-type: none"> 72x 3.5" Hot-swap SAS3/SATA3 drive bays with SES2 Double-sided storage 2x 2.5" Hot-swap drive bays (rear)
Fixed	<ul style="list-style-type: none"> 2x 2.5" Fixed bays

Backplane

SAS3/SATA3 single expander per backplane

System Cooling

Fans	<ul style="list-style-type: none"> 7x 92mm hot-swap cooling fans
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Power Supply with Digital Switching Control

2000W Titanium Level (96%) High-efficiency Redundant Power Supplies

Total Output Power	<ul style="list-style-type: none"> 1000W/1800W/1980W/2000W
AC Input	<ul style="list-style-type: none"> 100-127 V, 50-60 Hz 200-220 V, 50-60 Hz 220-230 V, 50-60 Hz 230-240 V, 50-60 Hz
+12V	<ul style="list-style-type: none"> Max: 83.3A & Min: 0A (100Vac-127Vac) Max: 150A & Min: 0A (200Vac-220Vac) Max: 165A & Min: 0A (220Vac-230Vac) Max: 166.7A & Min: 0A (230Vac-240Vac)
5V SB	<ul style="list-style-type: none"> Max: 1A / Min: 0A

Certification



Titanium Level
[[Test Report](#)]

System BIOS

BIOS Type	<ul style="list-style-type: none"> 128Mb SPI Flash EEPROM with AMI BIOS
BIOS Features	<ul style="list-style-type: none"> Plug and Play (PnP) APM 1.2 PCI 2.2 ACPI 1.0 / 2.0 USB Keyboard support SMBIOS 2.3 UEFI

Operating Environment / Compliance

RoHS	<ul style="list-style-type: none"> RoHS Compliant
Environmental Spec.	<ul style="list-style-type: none"> Operating Temperature: 10°C to 35°C (50°F to 95°F) Non-operating Temperature: -40°C to 70°C (-40°F to 158°F) Operating Relative Humidity: 8% to 90% (non-condensing) Non-operating Relative Humidity: 5% to 95% (non-condensing)

Parts List

Parts List - (Items Included)			
	Part Number	Qty	Description
Motherboard / Chassis	MBD-X10DRH-iT	1	Super X10DRH-iT Motherboard
	CSE-847DTS-R2K04LPB	1	4U Chassis
Add-on Card / Module	AOC-S3008L-L8E-P	3	
Backplane	BPN-SAS3-847DR	1	Rear mid-plane (847DR) for SAS3 12Gbps 847D server project, support 24x 3.5
Backplane	BPN-SAS3-847DE48D	1	SAS3 12Gbps front expander board for SC847D, support 48x SAS/SATA HDD, support direct connection (no cascade) type configurations,RoHS/REACH
Backplane	BPN-SAS3-847DE24D	1	SAS3 12Gbps rear expander board for SC847D, support 24x SAS/SATA HDD, support direct connection (no cascade) type configurations,RoHS/REACH
Backplane	BPN-SAS3-847DF	1	Front mid-plane (847DF) for SAS3 12Gbps 847D project, support 48x 3.5" SATA3/SAS2/SAS3 HDDs by using 24x dual-HDD tray,,RoHS/REACH
Cable 1	CBL-SAST-0531	4	Internal Mini-SAS HD to Mini-SAS HD 80cm,30AWG,12Gb/s, HF,RoHS/REACH,PBF
Cable 2	CBL-SAST-0532	2	Internal Mini-SAS HD to Mini-SAS HD 50cm,30AWG,12Gb/s,HF,RoHS/REACH,PBF
Label	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
Parts	MCP-260-00042-0N	1	STD I/O shield for X9 socket R server MB with Gasket.
Heatsink / Retention	SNK-P0048PS	1	2U Passive CPU Heat Sink for X9, X10 Generation Systems Equipped w/ a Narrow ILM MB
Heatsink / Retention	SNK-P0048AP4	1	2U Active CPU Heat Sink for Intel R2/R3/B2/B3 and AMD C32
Parts	MCP-220-84704-0N	1	SC847D Rear 2.5" HDD Kit
Power Supply	PWS-2K04A-1R	2	AC-DC 2000W, Titanium Level, Redundancy, 1U, PMBus 1.2, +12V/+5Vsb, 360x76x40mm,HF,RoHS/REACH

Optional Parts List			
	Part Number	Qty	Description
Peripheral Drives	MCP-220-84704-0N	-	Rear 2 X 2.5" HDD kit (cables & backplane included)
Onsite Service Program	OS4HR3/2/1	-	3/2/1-year onsite 24x7x4 service
Onsite Service Program	OSNBD3/2/1	-	3/2/1-year onsite NBD service
Software	SFT-OOB-LIC	1	OOB Management Package (per node license)
Software	SFT-DCMS-Single	1	DataCenter Management Package (per node license)